Was Genghis Khan history's greenest conqueror?

The Mongol invasion scrubbed nearly 700 million tons of carbon from the atmosphere, according to surprising new research.

**By**

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GENGHIS GREEN: The founder of history's largest contiguous empire cooled the planet while taking a body count. (Photo: Wiki Commons/public domain)

Genghis Khan's Mongol invasion in the 13th and 14th centuries was so vast that it may have been the first instance in history of a single culture causing man-made climate change, according to new research out of the Carnegie Institution's Department of Global Ecology, [reports Mongabay.com](http://news.mongabay.com/2011/0120-hance_mongols.html).

Unlike modern day climate change, however, the Mongol invasion cooled the planet, effectively scrubbing around 700 million tons of carbon from the atmosphere.

So how did Genghis Khan, one of history's cruelest conquerors, earn such a glowing environmental report card? The reality may be a bit difficult for today's environmentalists to stomach, but Khan did it the same way he built his empire — with a high body count.

Over the course of the century and a half run of the Mongol Empire, about [22 percent of the world's total land area](http://en.wikipedia.org/wiki/Mongol_Empire) had been conquered and an [estimated 40 million people](http://books.google.com/books?id=C1BL5UCTFOgC&pg=PA43&dq&hl=en#v=onepage&q&f=false)were slaughtered by the horse-driven, bow-wielding hordes. Depopulation over such a large swathe of land meant that countless numbers of cultivated fields eventually returned to forests.

In other words, one effect of Genghis Khan's unrelenting invasion was widespread reforestation, and the re-growth of those forests meant that more carbon could be absorbed from the atmosphere.

"It's a common misconception that the human impact on climate began with the large-scale burning of coal and oil in the industrial era," said Julia Pongratz, who headed the Carnegie Institution research project. "Actually, humans started to influence the environment thousands of years ago by changing the vegetation cover of the Earth's landscapes when we cleared forests for agriculture."

Pongratz's study, which was completed with the help of her Carnegie colleague Ken Caldeira, as well as with German colleagues at the Max Planck Institute for Meteorology, measured the carbon impact of a number of historical events besides just the Mongol invasion, including the Black Death in Europe, the fall of China's Ming Dynasty and the conquest of the Americas.

What all of these events share in common is the widespread return of forests after a period of massive depopulation, but the longevity of the Mongol invasion made it stand out as having the biggest impact on the world's climate.

"We found that during the short events such as the Black Death and the Ming Dynasty collapse, the forest re-growth wasn't enough to overcome the emissions from decaying material in the soil," explained Pongratz. "But during the longer-lasting ones like the Mongol invasion ... there was enough time for the forests to re-grow and absorb significant amounts of carbon."

The 700 million tons of carbon absorbed as a result of the Mongol invasions roughly equals the amount of carbon global society now produces annually from gasoline.

Though Genghis Khan's legacy as one of the world's cruelest conquerors isn't likely to change because of the unintended "green" consequences of his invasions, Pongratz hopes that her research can lead to land-use changes that someday might alter how future historians rate our environmental impact.

"Based on the knowledge we have gained from the past, we are now in a position to make land-use decisions that will diminish our impact on climate and the carbon cycle. We cannot ignore the knowledge we have gained," she said.

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